REMARKS/ARGUMENTS

Applicants respectfully request that the recently filed amendment after final not be entered in this case. Applicants submit this Submission and Request for continued examination for consideration. The claims have been amended as set forth above.

I. Examiner Interview August 21, 2007

An examiner interview was held on August 21, 2007. An agreement as to allowablity was not reached. The claims, however, are amended as set forth herein to include features that Examiner Dao indicated may help move prosecution forward. In further to the discussion associated to the Interview, applicants direct Examiner Dao to FIGURES 9-12 and the associated specification.

II. Rejection under 35 U.S.C. 102(b)

Claims 1, 3-8, 10-14, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,760,903 issued to Morshed (hereinafter "Morshed"). As set forth in the recent interview, Applicants respectfully disagree with the rejection. Applicants, however, have amended the claims as suggested during the interview.

Independent claim 1 includes the following combination of features that is not taught or suggested by the cited references:

> a plurality of procedures, wherein each procedure comprises a sequence of binary instructions;
>
> a runtime for generating unwind data, wherein the unwind data includes a first plurality of blocks of metadata having a first order of blocks, wherein each block of metadata is associated with a corresponding procedure in the plurality of procedures, wherein each block of metadata in the plurality of blocks of metadata includes at least one unwind table and at least one unwind information block; and
>
> an unwind rewriter programmed to obtain the unwind data and reorder the first plurality of blocks of metadata to generate a second plurality of blocks of metadata having a second order, wherein the unwind rewriter reorders the first plurality of blocks in accordance with a second unwind table and a second unwind information block, ***wherein reordering the first plurality of blocks in accordance with a second unwind table and a second unwind information block further***

comprises determining when basic blocks identified in a single unwind table associated with the first order of blocks are associated with more than one unwind table associated with a current order of basic blocks, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the first order blocks are associated with more than one unwind table associated with the current order of basic blocks, wherein the first plurality of blocks are reordered in response to a modification of the sequence of binary instructions within a procedure, such that the second plurality of blocks of metadata accurately represents the same runtime semantics as that of the unmodified sequence of binary instructions.

The above combination of features are not taught or suggested by the cited reference. As stated during the interview, Morshed pertains to gathering information associated with a distributed application. *See Morshed*, at Abstract. The intermediate representation described in Morshed pertains to a typical intermediate representation during compilation of code. *Morshed*, at col. 7, lines 49-57. The intermediate representation data is instrumented to provide object code. *Morshed*, at col. 7. Morshed fails to teach or otherwise suggest "an unwind rewriter programmed to obtain the unwind data and reorder the first plurality of blocks of metadata to generate a second plurality of blocks of metadata having a second order, wherein the unwind rewriter reorders the first plurality of blocks in accordance with a second unwind table and a second unwind information block, wherein reordering the first plurality of blocks in accordance with a second unwind table and a second unwind information block further comprises determining when basic blocks identified in a single unwind table associated with the first order of blocks are associated with more than one unwind table associated with a current order of basic blocks, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the first order blocks are associated with more than one unwind table associated with the current order of basic blocks, wherein the first plurality of blocks are reordered in response to a modification of the sequence of binary instructions within a procedure, such that the second plurality of blocks of metadata accurately represents the same runtime semantics as that of the unmodified sequence of binary instructions." Accordingly, applicants assert that independent claim 1 is allowable.

Independent claim 4 includes the following combination of features that is not taught or suggested by the cited references:

obtaining original unwind data that describes the original order of the basic blocks, wherein the original unwind data is associated with an unwind table and unwind descriptor records;

regenerating new unwind data from the original unwind data, wherein regenerating new unwind data includes generating new unwind tables and new unwind descriptor records, wherein the new unwind data includes a reordering of the original order of basic blocks, ***wherein regenerating the new unwind descriptor records further comprises determining when basic blocks identified in a single unwind table associated with the original order of basic blocks are associated with more than one unwind table associated with the current order of basic blocks, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the original order of basic blocks are associated with more than one unwind table associated with the current order of basic blocks*** and wherein the reordering represents the same runtime semantics as that of the unmodified sequence of binary instructions; and

writing the new unwind data to the modified binary procedure.

The above combination of features are not taught or suggested by the cited reference. Morshed fails to teach or otherwise suggest "regenerating new unwind data from the original unwind data, wherein regenerating new unwind data includes generating new unwind tables and new unwind descriptor records, wherein the new unwind data includes a reordering of the original order of basic blocks, wherein regenerating the new unwind descriptor records further comprises determining when basic blocks identified in a single unwind table associated with the original order of basic blocks are associated with more than one unwind table associated with the current order of basic blocks, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the original order of basic blocks are associated with more than one unwind table associated with the current order of basic blocks and wherein the reordering represents the same runtime semantics as that of the unmodified sequence of binary instructions." Accordingly, applicants assert that independent claim 4 is allowable.

Independent claim 11 includes the following combination of features that is not taught or suggested by the cited references:

receiving unwind data comprising an unwind table and a plurality of unwind descriptor records wherein the unwind data is associated with a procedure having binary instructions;

modifying the procedure to perturb the binary instructions of the procedure;

parsing the unwind data to identify a start basic block and an end basic block for a region associated with the procedure; and

rewriting the unwind data, wherein the rewriting of unwind data includes a reordering of unwind data in accordance with a second unwind table and a second plurality of unwind descriptor records such that the rewritten unwind data accurately represents the runtime semantics of the binary instructions before the binary instructions were perturbed, ***wherein generating the second plurality of unwind descriptor records further comprises determining when basic blocks identified in a single unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure***.

The above combination of features are not taught or suggested by the cited reference. Morshed fails to teach or otherwise suggest "rewriting the unwind data, wherein the rewriting of unwind data includes a reordering of unwind data in accordance with a second unwind table and a second plurality of unwind descriptor records such that the rewritten unwind data accurately represents the runtime semantics of the binary instructions before the binary instructions were perturbed, wherein generating the second plurality of unwind descriptor records further comprises determining when basic blocks identified in a single unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure, and creating a new region header describing a region of zero length when the basic blocks identified in the single unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure." Accordingly, applicants assert that independent claim 11 is allowable.

Independent claim 19 includes the following combination of features that is not taught or suggested by the cited references:

receiving unwind data comprising an unwind table and a plurality of unwind descriptor records wherein the unwind data is associated with a procedure having binary instructions;

modifying the procedure to perturb the binary instructions of the procedure;

parsing the unwind data to identify a start basic block and an end basic block for a region associated with the procedure; and

rewriting the unwind data, wherein the rewritten unwind data includes a reordering of the unwind data according to a second unwind table and a second plurality of unwind descriptor records such that the rewritten unwind data accurately represents the runtime semantics of the binary instructions before the binary instructions were perturbed, ***wherein reordering of the unwind data according to a second unwind table and a second plurality of unwind descriptor further comprises determining when basic blocks identified in the unwind table are associated with more than one unwind table associated with the binary modified procedure, and creating a new region header describing a region of zero length when the basic blocks identified in the unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure.***

The above combination of features are not taught or suggested by the cited reference. Morshed fails to teach or otherwise suggest "rewriting the unwind data, wherein the rewritten unwind data includes a reordering of the unwind data according to a second unwind table and a second plurality of unwind descriptor records such that the rewritten unwind data accurately represents the runtime semantics of the binary instructions before the binary instructions were perturbed, wherein reordering of the unwind data according to a second unwind table and a second plurality of unwind descriptor further comprises determining when basic blocks identified in the unwind table are associated with more than one unwind table associated with the binary modified procedure, and creating a new region header describing a region of zero length when the basic blocks identified in the unwind table associated with the unmodified procedure are associated with more than one unwind table associated with the binary modified procedure." Accordingly, applicants assert that independent claim 19 is allowable.

Independent claim 20 includes the following combination of features that is not taught or suggested by the cited references:

obtaining original unwind data that describes the original order of the basic blocks, wherein the original unwind data is associated with an unwind table and unwind descriptor records;

rewriting the original unwind data, wherein the rewritten unwind data includes a reordering of the original order of basic blocks, wherein rewriting the original unwind data includes:

parsing the original unwind data to identify a start block and an end block for region headers associated with the procedures in the modified binary procedures, wherein the identified start block and the identified end block are recorded in a procedure side table,

generating a new unwind table based in the procedure side table,

generating new unwind descriptors based on the procedure side table and the new unwind table,

reordering the original unwind data according to the new unwind table and the new unwind descriptors, wherein reordering includes determining when basic blocks identified in the new unwind table are associated with more than one unwind table, and creating a new region header describing a region of zero length when the basic blocks identified in the new unwind table are associated with more than one unwind table.

The above combination of features are not taught or suggested by the cited reference. Morshed fails to that rewriting the original unwind data includes "parsing the original unwind data to identify a start block and an end block for region headers associated with the procedures in the modified binary procedures, wherein the identified start block and the identified end block are recorded in a procedure side table", "generating a new unwind table based in the procedure side table", "generating new unwind descriptors based on the procedure side table and the new unwind table" and "reordering the original unwind data according to the new unwind table and the new unwind descriptors, wherein reordering includes determining when basic blocks identified in the new unwind table are associated with more than one unwind table, and creating a new region header describing a region of zero length when the basic blocks identified in the new unwind table are associated with more than one unwind table." Accordingly, applicants assert that independent claim 20 is allowable.

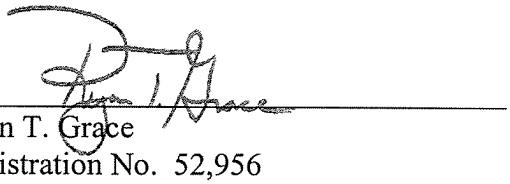
With regard to the dependent claims, the dependent claims include features that are not taught or suggested by the cited reference. Furthermore, in light of their dependency, the dependent claims should be found allowable for at least the same reasons set forth above for their respective independent claims.

III. Request for Reconsideration

In view of the foregoing, applicants respectfully request a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

MERCHANT & GOULD P.C.



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